



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,532	06/01/2001	Daniel J. McGurran	56763USA2A.002	3298

32692 7590 03/23/2006

3M INNOVATIVE PROPERTIES COMPANY  
PO BOX 33427  
ST. PAUL, MN 55133-3427

EXAMINER
----------

AHMED, SHEEBA

ART UNIT	PAPER NUMBER
----------	--------------

1773

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/872,532	MCGURRAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sheeba Ahmed	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 10, 11, 13-19 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 10, 11, and 13-19, and 21-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. No amendments have been made in the above-identified application. **Claims 1, 2, 10, 11, and 13-19, and 21-27 are pending.**

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 26 and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 26 and 27 are directed to window films having a specific composition and a specific thickness, i.e., the original disclosure does not teach a ***window film*** of a cast, oriented polyester-containing polymer material ***having a thickness of 0.3 to 3mm and having dispersed therein between 0.2 and 0.5 weight percent carbon black particulate pigment*** having a mean diameter of 500nm and a blue dye in an amount sufficient to adjust the transmitted color of the window film (to a neutral gray) and wherein the window film exhibits a transmission of light of 5 to 90% and an internal haze of less than or equal to 5%. The Applicants fail to point to any support for specifically

Art Unit: 1773

claimed window film and the Examiner was unable to find any support for such a window film in the original disclosure. Page 1, line 14 and Page 2, line 6 discuss the previous art whereas page 4, line 19 simply states that the optical bodies of the instant invention can be used as window and auto glass films but fails to disclose a window film of a cast, oriented polyester-containing polymer material having a thickness of 0.3 to 3mm. Applicants have pointed to various portions of the original disclosure but have failed to establish support for the claimed window film in the original disclosure.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 10, 11, 13-19, 21, 24, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by McGurran et al. (US 6,569,517 B1).

McGurran et al. disclose color-tailorable polymeric optical bodies comprising a polymeric core comprising at least one layer of a thermoplastic polymer material having dispersed therein a particulate pigment and a metallic layer on the outer surface of a polymeric core (Column 2, lines 1-5). The color scales of the optical body are L\*, a\*, and b\* wherein the a\* and b\* values range from about –5 to about 5 within the visible

Art Unit: 1773

spectrum (Column 2, lines 36-43). The core of the optical body can incorporate any thermoplastic material including polyesters such as polyethylene terephthalate (Column 3, lines 39-45). The dispersed particulate pigment has a mean particle diameter of 10nm to 500nm and the most widely used pigments are carbon blacks (Column 5, lines 20-32). The particulate pigment is added in an amount between 0.01 to 1.0 % by weight (Column 6, lines 6-11). Useful applications of the invention described by McGurran et al. include the production of neutral or gray tinted film using carbon black and an aluminum surface layer. Carbon black pigmented polymeric cores are slightly yellow in transmission which translates into a positive  $b^*$  value. Aluminum has a blue hue, or negative  $b^*$  value, and can be used to compliment the carbon black to produce a neutral or gray color. However, a aluminum layer can increase the reflectivity of the optical body and as an alternative to using aluminum, other pigments such as indanthrone, copper phthalocyanine and cobalt aluminate can be used in combination with the carbon black to decrease the  $b^*$  value of the polymeric core to produce a neutral gray optical body (Column 11, lines 11-35). Desirable transmission of the above described optical bodies ranges from 1 to 95 percent (Column 12, lines 6-24) and the internal haze is less than 5 percent (Column 12, lines 51-67 and Column 13, lines 1-5). The above-described optical bodies can be used in any application to provide a neutral or colored tinted filter and can be applied to other optical bodies such as window glazing made of glass or polycarbonates (Column 13, lines 9-23). All limitations of claims 1, 2, 10, 11, 13-19, 21, 24, and 25 are disclosed in the above reference.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGurran et al. (US 6,569,517 B1) in view of Weaver et al. (US 6,248,816 B1).

McGurran et al. disclose color-tailorable polymeric optical bodies comprising a polymeric core comprising at least one layer of a thermoplastic polymer material having dispersed therein a particulate pigment and a metallic layer on the outer surface of a polymeric core (Column 2, lines 1-5). The color scales of the optical body are  $L^*$ ,  $a^*$ , and  $b^*$  wherein the  $a^*$  and  $b^*$  values range from about  $-5$  to about  $5$  within the visible spectrum (Column 2, lines 36-43). The core of the optical body can incorporate any thermoplastic material including polyesters such as polyethylene terephthalate (Column 3, lines 39-45). The dispersed particulate pigment has a mean particle diameter of  $10\text{nm}$  to  $500\text{nm}$  and the most widely used pigments are carbon blacks (Column 5, lines 20-32). The particulate pigment is added in an amount between  $0.01$  to  $1.0\%$  by weight (Column 6, lines 6-11). Useful applications of the invention described by McGurran et al. include the production of neutral or gray tinted film using carbon black and an aluminum surface layer. Carbon black pigmented polymeric cores are slightly yellow in transmission which translates into a positive  $b^*$  value. Aluminum has a blue hue, or

Art Unit: 1773

negative  $b^*$  value, and can be used to compliment the carbon black to produce a neutral or gray color. However, a aluminum layer can increase the reflectivity of the optical body and as an alternative to using aluminum, other pigments such indanthrone, copper phthalocyanine and cobalt aluminate can be used in combination with the carbon black to decrease the  $b^*$  value of the polymeric core to produce a neutral gray optical body (Column 11, lines 11-35). Desirable transmission of the above described optical bodies ranges from 1 to 95 percent (Column 12, lines 6-24) and the internal haze is less than 5 percent (Column 12, lines 51-67 and Column 13, lines 1-5). The above-described optical bodies can be used in any application to provide a neutral or colored tinted filter and can be applied to other optical bodies such as window glazing made of glass or polycarbonates (Column 13, lines 9-23).

McGurran et al. fail to disclose that the other pigments or dyes such as indanthrone, copper phthalocyanine and cobalt aluminate are copolymerized in the polymer material.

However, Weaver et al. disclose polymeric composition comprising a mixture of a thermoplastic resin and a dye composition (Column 2, lines 1-3) wherein the dye composition may be blended with the thermoplastic resin or alternatively, the dye may be copolymerized with the thermoplastic resin via a reactive group (Column 2, lines 50-68). Examples of dyes include indanthrone compounds (Column 5, lines 6-7).

Accordingly, it would have been obvious to one having ordinary skill in the art to copolymerize the other pigments such indanthrone, copper phthalocyanine and cobalt aluminate, as taught by McGurran et al., with their thermoplastic material to decrease

Art Unit: 1773

the b\* value of the polymeric core to produce a neutral gray optical body given that Weaver et al. specifically teach mixing, blending, and copolymerizing the dye with the thermoplastic material as equivalent methods of imparting color to the thermoplastic material.

### ***Response to Arguments***

5. Applicant's arguments filed on January 9, 2006 have been fully considered but they are not persuasive.

Applicants traverse the rejection of claims 26 and 27 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement and point to page 1, line 14, Page 2, line 6, and page 4, line 19. However, as pointed out above, Page 1, line 14 and Page 2, line 6 discuss the previous art whereas page 4, line 19 simply states that the optical bodies of the instant invention can be used as window and auto glass films but fails to disclose a window film of a cast, oriented polyester-containing polymer material having a thickness of 0.3 to 3mm. Applicants have pointed to various portions of the original disclosure but have failed to establish support for the claimed window film in the original disclosure

Applicants traverse the rejection of claims 1, 2, 10, 11, 13-19, 21, 24, and 25 under 35 U.S.C. 102(e) as being anticipated by McGurran et al. (US 6,569,517 B1) and McGurran does not teach the addition of a dye to an optical body. Applicants further states that the "other pigments such indanthrone, copper phthalocyanine and cobalt aluminate" taught by McGurran do not meet the limitation of the claimed invention.



Art Unit: 1773

However, the Examiner disagrees. Although McGurran uses the term "pigment" for indanthrone, copper phthalocyanine and cobalt aluminate these are the same "dyes" used in the instant invention and hence are inherently the same.

Applicants further traverse the rejection under 35 U.S.C. 103(a) as being unpatentable over McGurran et al. (US 6,569,517 B1) in view of Weaver et al. (US 6,248,816 B1) and submit that there is no suggestion to combine the references. In response, the Examiner would like to point out that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one having ordinary skill in the art to copolymerize the other pigments such indanthrone, copper phthalocyanine and cobalt aluminate, as taught by McGurran et al., with their thermoplastic material to decrease the b\* value of the polymeric core to produce a neutral gray optical body given that Weaver et al. specifically teach mixing, blending, and copolymerizing the dye with the thermoplastic material as equivalent methods of imparting color to the thermoplastic material.

Applicants further state that the specific teachings of Weaver teach away from the teachings of McGurran. However, the Examiner would like to point out that only if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references

Art Unit: 1773

are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). However, the teachings of Weaver do not change the principle operation of McGurran and hence do not teach away from the modification. The strongest rationale for combining references is a recognition, expressly or impliedly in the prior art or drawn from a convincing line of reasoning based on established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by their combination. In re Sernaker, 702 F.2d 989, 994-95, 217 USPQ 1, 5-6 (Fed. Cir. 1983).

The Declaration of Daniel J. McGurran under Rule 132, submitted on January 9, 2006 is incomplete and hence does not overcome any of the above rejections. The Declaration is listed as having three pages however only pages 1 and 3 were transmitted via fax to the U.S. Patent and Trademark Office.

Hence, the above rejections are maintained.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 1773

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (571) 272-1504. The examiner can normally be reached on Mondays and Thursdays from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.



Sheeba Ahmed

Art Unit 1773

March 20, 2006